

Supplementary Materials of
Optimizing Deficit Irrigation Management to Improve Water
Productivity of Greenhouse Tomato under Plastic Film Mulching
Using the RZ-SHAW Model

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Table S1. The soil physicochemical properties at the field experiment site.

Soil type	pH	OM (%)	EC (dS m ⁻¹)	Nutrients			FC (%)	PWP (%)
				N (mg kg ⁻¹)	P (mg kg ⁻¹)	K (mg kg ⁻¹)		
Sand loam	7.1	1.9	0.26	108.0	40.5	82.0	18.0	8.0

Note: OM, organic matter; EC, electrical conductivity; N, nitrogen; P, phosphorus; K, potassium; FC, field capacity; PWP, permanent wilting point.

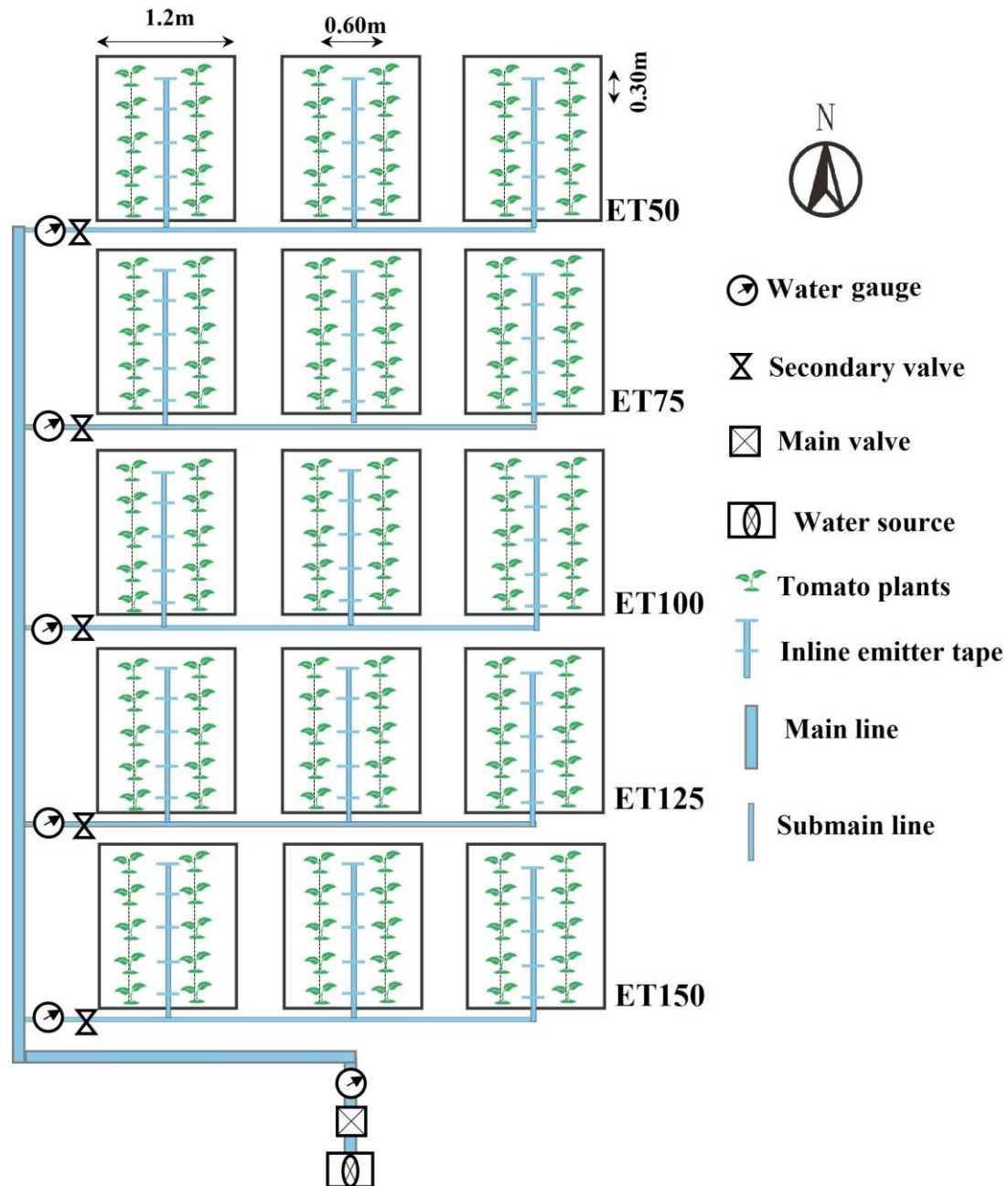


Figure S1 Layout of installed drip system and experimental design in tomato greenhouse.

Table S2 Deficit irrigation (DI) rates and scheduling in each scenario

Irrigation Events	Irrigation Date	Irrigation rates (cm)						
		ET50	ET75	ET100	ET125	ET150	ET95	ET200
1	01 April	0.28	0.40	0.52	0.68	0.77	0.50	0.95
2	11 April	0.33	0.50	0.67	0.83	1.00	0.64	1.34
3	21 April	0.33	0.50	0.67	0.83	1.00	0.64	1.34
4	28 April	1.00	1.50	2.00	2.50	3.00	1.90	4.00
5	05 May	1.00	1.50	0.56	2.50	3.00	0.75	4.00
6	12 May	1.00	1.50	2.00	2.50	3.00	1.90	4.00
7	19 May	1.00	1.50	2.00	2.50	3.00	1.90	4.00
8	26 May	1.00	1.50	2.00	2.50	3.00	1.90	4.00
9	02 June	0.50	0.75	1.00	1.25	1.50	0.95	2.00
10	09 June	0.50	0.75	1.00	1.25	1.50	0.95	2.00
11	16 June	0.50	0.75	1.00	1.25	1.50	0.95	2.00
12	23 June	0.50	0.75	1.00	1.25	1.50	0.95	2.00
13	03 July	0.50	0.75	1.00	1.25	1.50	0.95	2.00
14	13 July	0.71	0.04	1.00	0.04	0.25	0.81	0.67
Total irrigation applied		9.16	12.69	16.41	21.14	25.51	15.67	32.30

Note: ET: crop potential evapotranspiration, which was calculated by the Penman–Monteith equation. ET50, ET100, ET75, ET100, ET125, and ET150 scenarios were represented five deficit irrigation levels in the greenhouse experiment. ET95 scenario was the optimal DI for maximizing water productivity (WP).